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Dennis Hill

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07/25/2008

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EXAMINER

OREILLY, PATRICK F

ART UNIT

PAPER NUMBER

3749

MAIL DATE

DELIVERY MODE

07/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,585	Applicant(s) HILL, DENNIS	
	Examiner Patrick F. O'Reilly III	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's amendment mailed on April 16, 2008.

Drawings

2. The amendment to the drawings filed April 16, 2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the *specific location* of the "temperature sensor 30", the "fan 31", and the "heater 32" as depicted in amended Figures 1 and 2. The originally filed specification does not describe the *specific location* of these components as depicted in amended Figures 1 and 2. In particular, with respect to the "temperature sensor 30" and the "heater 32", the original disclosure merely provides that these two components are "positioned inside the cabinet" (see e.g., page 4 of the specification, lines 7-8 and 29-30). Moreover, with respect to "fan 31", while the original disclosure provides that the fan can be provided "under vent 5" (see e.g., page 4, lines 22-23), it does not specify the specific location of the "fan 31" under "vent 5" as newly depicted in amended Figures 1 and 2.

Applicant is required to cancel the new matter in the reply to this Office Action.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must

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be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-2 and 7-12** are rejected under 35 U.S.C. 102(b) as being anticipated by Dufresne et al. (US 4,495,545). The specification and the drawings in the Dufresne et al. reference disclose all of the elements recited in **claims 1-2 and 7-12** of this application.

7. Specifically, in regard to claim 1, which is directed to an air circulation and ventilation unit, the Dufresne et al. reference discloses all of the claimed elements, including: a housing (37) configured to fit at least partially over the ceiling (ceiling member 15) of an equipment cabinet (enclosure 10) including fitting over at least one vent (apertures 17 at the base of trough 16) in the ceiling (15) of the cabinet (10), so that the interior of the housing (37) is in communication (Fig. 2) with the interior of the cabinet (10), the housing (37) having a housing vent (31) comprising a closure (baffle 21) moveable between an open position (as shown in Fig. 2) in

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which air (denoted by arrows 32) is permitted to flow through the housing vent (31) between the outside of the housing (37) and the inside of the housing (37) and a closed position (as shown in Fig. 1) in which little or no air (denoted by arrows 26) is permitted to flow through the housing vent (31) between the outside of the housing (37) and the inside of the housing (37), and a controller (cylinder 41, moveable rod 42) to control the position of the housing vent closure (21).

Refer to Dufresne et al., Figures 1-5; column 2, lines 11-68; and column 3, lines 1-45.

Therefore, because all of the elements in claim 1 of this application are disclosed by the Dufresne et al. reference, this claim is rejected in accordance with 35 U.S.C. 102(b).

8. In regard to claim 2, Dufresne et al. further discloses a temperature sensor (heat responsive material inside cylinder 41) attached to the controller (cylinder 41, moveable rod 42) that provides an indication of the temperature inside the cabinet (the heat responsive material expands in response to a temperature increase in the cabinet 10 and contracts in response to a decrease in temperature). See Dufresne et al., Figure 4 and column 3, lines 16-38. Thus, Dufresne et al. meets the language of this claim.

9. In regard to claim 7, Dufresne et al. further discloses that the housing vent closure (baffle 21) rotates (about pivot axis 22) between the open (Fig. 2) and closed (Fig. 1) positions. Refer to Dufresne et al., Figures 1-2 and column 2, lines 34-39. Consequently, the Dufresne et al. reference also meets the language set forth in claim 7.

10. In regard to claim 8, Dufresne et al. further discloses that the housing vent (31) and closure (21) are provided in an external wall of the housing (the pivotal axis 22 of baffle 21 is disposed in opposed external side walls of the housing 37). See Dufresne et al., Figures 1-2 and 4. Therefore, Dufresne et al. also meets the language set forth in this claim.

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11. In regard to claim 9, Dufresne et al. further discloses an equipment cabinet (enclosure 10) having a ceiling (ceiling member 15) provided in combination with the air circulation and ventilation unit as described with respect to claim 1 above, with the housing (37) fitting over at least one vent (apertures 17 at the base of trough 16) in the ceiling (15) of the cabinet (10), so that the interior of the housing (37) is in communication (Fig. 2) with the interior of the cabinet (10). Refer to Dufresne et al., Figures 2 and 4. Thus, Dufresne et al. meets the language set forth in claim 9.

12. In regard to claim 10, Dufresne et al. further discloses a roof (top, horizontal surface of housing 37) over the circulation and ventilation unit as described with respect to claim 1 above. See Dufresne et al., Figures 1-4. Consequently, the Dufresne et al. reference also meets the language set forth in this claim.

13. In regard to claim 11, Dufresne et al. further discloses a fan (electric fans 19) inside the cabinet (enclosure 10) to circulate air (as shown by arrows 26, 32 in Figs. 1 and 2). Refer to Dufresne et al., Figures 1-2 and column 2, lines 30-33. Therefore, Dufresne et al. also meets the language set forth in claim 11.

14. In regard to claim 12, Dufresne et al. further discloses that the housing vent (31) is horizontally offset from the cabinet vent (apertures 17). See Dufresne et al., Figures 1-2. Thus, Dufresne et al. meets the language of this claim.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claims 3-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dufresne et al. (US 4,495,545). The specification and the drawings in the Dufresne et al. reference disclose all of the elements recited in **claims 3-4** of this application, except for (claim 3) the placement of the fan inside the housing, which constitutes an obvious matter of design choice.

17. In particular, claims 3-4 of this application are obvious in light of Dufresne et al. This reference discloses all the elements of claim 1, the claim upon which these two claims depend. Moreover, with respect to claims 3-4, Dufresne et al. further discloses (claim 3) a fan (electric fans 19) to circulate air (as shown by arrows 26, 32 in Figs. 1 and 2) within the cabinet (enclosure 10), wherein (claim 4) the fan (19) is controlled by the controller (the fans 19 are switched on when controller 41, 42 pivots the baffle 21 to the position depicted in Fig. 2). Refer to Dufresne et al., Figures 1-2; column 2, lines 30-33; and column 3, lines 1-2. Dufresne et al. does not disclose expressly that the fan (19) is located inside the housing. Although, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to either locate the fan (19) inside the cabinet (10) as depicted in Figures 1 and 2 of Dufresne et al., or alternatively, to locate the fan (19) inside the housing as recited by claim 3 of this application, because the applicant has not disclosed that providing the fan inside the housing provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the applicant's invention to perform equally well with the fan (19) located inside the cabinet (10) as depicted in Figures 1 and 2 of Dufresne et al. because this placement of the fan also enables air to be circulated within

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the housing and the cabinet so that the electronic components disposed within the cabinet may be effectively cooled.

18. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Dufresne et al. (US 4,495,545) in view of Jones (US 6,127,663). These two references, when considered together, teach all of the elements recited in **claim 5** of this application.

19. In particular, claim 5 of this application is obvious when Dufresne et al. is viewed in light of Jones. As described above, Dufresne et al. discloses all the elements of base claim 1, the claim upon which this claim depends. However, claim 5 of this application further discloses a heater inside the housing that is controlled by the controller. Dufresne et al. does not contain this additional element. Jones, although, teaches an outdoor electronic equipment cabinet (10) having a heater (heating element 62) disposed inside the cabinet housing (20), which is controlled by a controller (thermal controller 100), for the purpose of preheating the cooling air entering from the outside when it is too cold so that the air entering the interior of the cabinet is above the minimum cooling air temperature specified for the electronic equipment. Refer to Jones, Figure 2; column 3, lines 66-67; column 4, lines 1-12; and column 6, lines 32-38. Therefore, when Dufresne et al. is viewed in light of Jones, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the electronic equipment cabinet and ventilation unit of Dufresne et al. by adding a heater inside the housing that is controlled by the controller, as taught by Jones, in order to preheat the cooling air entering from the outside when it is too cold so that the air entering the interior of the housing is above the minimum cooling air temperature specified for the electronic equipment. See Jones, column 3, lines 66-67 and column 4, lines 1-3.

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20. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Dufresne et al. (US 4,495,545) in view of Lattimore et al. (US 6,342,004). These two references, when considered together, teach all of the elements recited in **claim 6** of this application.

21. In particular, claim 6 of this application is obvious when Dufresne et al. is viewed in light of Lattimore et al. As described above, Dufresne et al. discloses all the elements of base claim 1, the claim upon which this claim depends. However, claim 6 of this application further discloses that the controller comprises a solenoid that controls the position of the housing vent closure. Dufresne et al. does not contain this additional limitation. Lattimore et al., although, teaches a rack mounted chassis system for electronic components having a solenoid actuator coupled to thermistor-type temperature sensor that controls the position of a housing vent closure (shutters 20A, 20B) based upon a predetermined temperature setpoint for the purpose of accurately controlling the position of the vent closure (20A, 20B) by employing an active actuation mechanism and reliable temperature sensing device. Refer to Lattimore et al., column 3, lines 38-44. Therefore, when Dufresne et al. is viewed in light of Lattimore et al., it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the electronic equipment cabinet and ventilation unit of Dufresne et al. by replacing the passive-type actuator assembly (41, 42) with a solenoid actuator and thermistor that actively controls the position of the housing vent closure based upon a predetermined temperature setpoint, as taught by Lattimore et al., in order to more accurately control the position of the vent closure by employing an active actuation mechanism and a more reliable temperature sensing device.

Response to Arguments

22. Applicant's arguments filed April 16, 2008 have been fully considered but they are not

persuasive for the reasons set forth below.

In his Remarks, the Applicant presents two distinct options (1 and 2) for construing Dufresne, which is the relied upon reference in the section 102(b) rejections presented above. However, it is important to note that neither Option 1, nor Option 2, presented in the Applicant's Remarks identifies the elements of the Dufresne reference in a manner that is consistent with the Examiner's rejection provided above. The section 102(b) rejections provided above clearly identify one-to-one correspondence between the elements recited in the claimed invention and their corresponding elements in the Dufresne reference. If he so desires, the Applicant must traverse the rejections as they are stated. In this case, because the Applicant has failed to specifically address the actual content of the rejections, Options 1 and 2 in the Applicant's Remarks are unpersuasive as to the patentability of the claimed invention.

Moreover, in his Remarks, the Applicant attempts to distinguish over the Dufresne reference by alleging that the structural components in Dufresne do not meet the limitations in claim 1 because when closure (baffle 21) is in the closed position, air can still flow between the interior of the housing and the exterior of the housing. This reasoning is flawed for several reasons. First, the language of claim 1 expressly provides that, when the closure is in the closed position, "*little* or no air is permitted to flow through the housing vent between the outside of the housing and the inside of the housing". Thus, as presently written, claim 1 reads on a reference that permits a *little* amount of air to flow through the housing vent when the closure is in its closed position. As set forth in the above rejections, Dufresne clearly discloses a housing (37), housing vent (31), and a closure (baffle 21). Refer to Dufresne et al., Figures 1-3. When the closure (21) is in its closed position (Fig. 1), no air flow is not permitted into the housing (37)

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from the first region outside of the housing (37), namely the interior of the cabinet (10).

Although, it is possible that a *little* amount of airflow may be permitted into the housing (37) from the second region outside of the housing (ambient outside environment) through housing vent (31). However, no more than a *little* amount of airflow will be able to flow through housing vent (31) from the outside because housing vent (31) is disposed within a recessed area, its airflow area is oriented perpendicular to the prevailing direction of any wind, and a filter is disposed across the entire airflow area of the housing vent (31), which results in a significant resistance to the free flow of air through the vent (31) in the absence of a driving force from a fan. Therefore, because the housing vent (31) in Dufresne permits no more than a *little* amount of airflow therethrough, this reference clearly meets all of the limitations set forth in claim 1 of this application.

Furthermore, in his Remarks, the Applicant also alleges that the claimed invention is not obvious in view of the Dufresne reference. First, it is initially noted that the Applicant's arguments regarding the nonobviousness of the claimed invention are without merit because independent claim 1 of this application has been properly rejected under section 102(b) as being *anticipated* by Dufresne. Secondly, most of the features that the Applicant discusses in his Remarks about obviousness are not even recited in the rejected claims. It is a well known principle of patent law that, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Nevertheless, the Examiner believes that some of these *unclaimed features* of the Applicant's invention may be useful in defining over the current

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prior art of record (e.g., the ability of the air circulation and ventilation unit to be retrofitted into existing cabinets).

As to all of the dependent claims in this application, because the Applicant relied upon his assertions regarding Dufresne as the basis for patentability, it is not necessary to specifically address any arguments associated with the rejections of these claims.

Conclusion

23. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick F. O'Reilly III whose telephone number is (571) 272-3424. The examiner can normally be reached on Monday through Friday, 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on (571) 272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick F. O'Reilly III/
Examiner, Art Unit 3749

/Steven B. McAllister/
Supervisory Patent Examiner, Art Unit 3749